

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P558972

Luminaire Tested: FSR-12-1-LD4-1STD-50-UNV-80-96-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558972  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/20/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FSR-12-1-LD4-1STD-50-UNV-80-96-EDD-90  
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

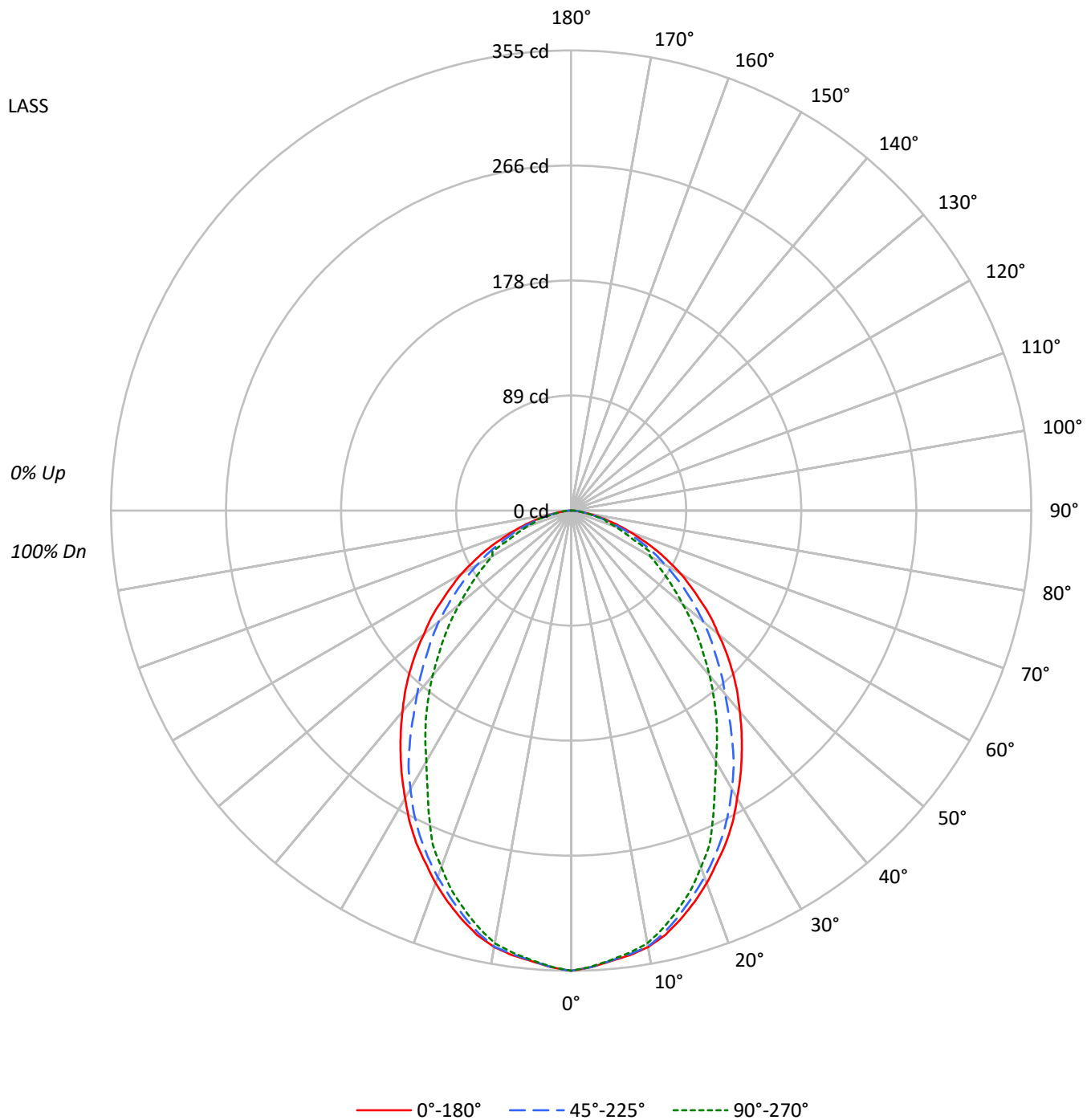
Lumens per Lamp: N/A  
Luminaire Lumens: 697.0 lumens  
Efficiency: N/A  
Efficacy: 84.0 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 8.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									20									
RC	80									70									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																			
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3821	3821	3821
5°	3770	3766	3761
10°	3737	3733	3705
15°	3636	3599	3549
20°	3503	3447	3353
25°	3359	3285	3081
30°	3183	3081	2775
35°	3014	2848	2568
40°	2844	2595	2335
45°	2681	2399	2111
50°	2482	2227	1884
55°	2295	2017	1687
60°	2103	1802	1511
65°	1852	1579	1337
70°	1523	1382	1136
75°	1210	1056	1110
80°	812	762	713
85°	506	605	704

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2681 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.1	4.7
10°-20°	90.7	13.0
20°-30°	125.6	18.0
30°-40°	133.9	19.2
40°-50°	122.2	17.5
50°-60°	95.7	13.7
60°-70°	62.4	8.9
70°-80°	27.6	4.0
80°-90°	5.9	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	249.3	35.8
0°-40°	383.2	55.0
0°-60°	601.1	86.2
0°-90°	697.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	697.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	355	355	355	355	355	
5°	349	348	348	348	348	33
15°	326	326	323	320	318	92
25°	283	281	277	267	259	130
35°	229	228	217	200	195	143
45°	176	172	158	144	139	136
55°	122	119	108	95	90	110
65°	73	68	62	63	52	72
75°	29	27	25	24	27	31
85°	4	4	5	5	6	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	355.0	355.0	355.0	355.0	355.0
2.5°	352.6	352.6	352.6	352.2	352.2
5°	348.9	348.5	348.5	348.1	348.1
7.5°	346.0	345.6	345.2	344.8	344.0
10°	341.9	341.9	341.5	339.4	339.0
12.5°	335.3	334.9	333.3	330.4	329.6
15°	326.3	326.3	323.0	319.7	318.5
17.5°	316.5	316.0	311.9	308.7	307.0
20°	305.8	305.0	300.9	295.5	292.7
22.5°	293.9	293.9	289.0	282.0	279.1
25°	282.8	281.2	276.6	266.8	259.4
27.5°	270.1	267.6	262.7	248.7	240.1
30°	256.1	254.9	247.9	229.9	223.3
32.5°	243.0	240.9	233.5	214.7	209.3
35°	229.4	227.8	216.7	200.3	195.4
37.5°	215.9	213.8	199.9	186.8	180.6
40°	202.4	199.9	184.7	172.8	166.2
42.5°	189.6	186.3	171.6	158.8	151.5
45°	176.1	172.4	157.6	144.5	138.7
47.5°	162.5	159.3	145.7	132.2	125.6
50°	148.2	145.3	133.0	119.4	112.5
52.5°	136.3	131.8	119.9	106.3	100.6
55°	122.3	118.6	107.5	94.8	89.9
57.5°	109.6	105.9	95.6	83.7	79.6
60°	97.7	92.4	83.7	73.5	70.2
62.5°	84.6	80.4	73.1	64.4	68.5
65°	72.7	68.5	62.0	63.2	52.5
67.5°	59.5	57.5	51.7	46.0	44.3
70°	48.4	46.0	43.9	37.8	36.1
72.5°	38.6	36.1	33.2	30.0	28.7
75°	29.1	27.1	25.4	24.2	26.7
77.5°	20.1	19.3	18.1	16.8	16.4
80°	13.1	12.7	12.3	11.9	11.5
82.5°	7.8	7.8	7.8	7.8	7.8
85°	4.1	4.5	4.9	5.3	5.7
87.5°	2.5	2.5	2.9	3.3	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)